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THE UNIVERSITY OF CHICAGO

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12. The method of claim 1, wherein application software for securely transferring electronic funds is accessed from a computer or server remote from the transferor's computer on an as-needed basis.

13. The method of claim 1, further comprising receipt of a
5 confirmation that funds were successfully transferred.

14. The method of claim 13, wherein the confirmation is an electronic message from a clearing bank acknowledging transfer of title of the funds to the recipient.

15. The method of claim 14, wherein the confirmation further
10 includes a unique number associated with the funds transfer.

16. The method of claim 13, wherein the confirmation is an electronic mail message from the recipient of the electronic funds.

17. The method of claim 13, wherein the confirmation is an electronic message from a network that the electronic message with digital cash file
15 attached was delivered to the recipient.

18. The method of claim 1, wherein the electronic funds transfer
~~is of money from a traditional bank account.~~

Sub C2 19. A method for receiving a secure file containing electronic funds comprising:



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22. The method of claim 19, wherein the security indicia is a signature identification of the recipient.

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23. The method of claim 19, wherein the security indicia is a
ate or PKI.

24. The method of claim 19, wherein the security indicia is a
er generator card or smart card.

25. The method of claim 19, wherein the security indicium is
20 retinal scan data, a fingerprint or a voiceprint.

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30. The method of claim 28, wherein the at least one security attribute is the requirement that a recipient of the file containing a digital representation of money enter a password, social security number, employee identification number or personal identification number.

5 31. The method of claim 28, wherein the at least one security attribute is the requirement that a recipient of the file containing a digital representation of money prove they are the intended recipient through computer signature identification.

10 32. The method of claim 28, wherein the at least one security attribute is the requirement that a recipient of the file containing a digital representation of money prove they are the intended recipient through entry of a digital certificate or PKI.

15 33. The method of claim 28, wherein the at least one security attribute is the requirement that a recipient of the file containing digital representation of money prove they are the intended recipient through use of a random number generator card or smart card.

20 34. The method of claim 28, wherein the at least one security attribute is the requirement that a recipient of the file containing a digital representation of money prove they are the intended recipient through a biometric scan comprised of a retina scan, fingerprint or voiceprint.

36. The method of claim 35, wherein the computer network is the internet.

38. The method of claim 28, wherein application software for securely transferring electronic funds is resident on the transferor's computer.

40. The method of claim 28, further comprising receipt of a confirmation that funds were successfully transferred.

42. The method of claim 41, wherein the confirmation further includes a unique number associated with the funds transfer.

43. The method of claim 40, wherein the confirmation is an electronic mail message from the recipient of the electronic funds.

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44. The method of claim 40, wherein the confirmation is an
electronic message from a network that the electronic message with digital cash file
5 attached was delivered to the recipient.

45. The method of claim 28, wherein the electronic funds transfer is of money from a traditional bank account.

Sub *De*
funds

46. A method for receiving a secure file containing electronic funds comprising:

10 (a) receiving an electronic mail message with an attached
computer file containing a digital representation of money, wherein the file
containing a digital representation of money has at least one security attribute which
precludes unauthorized access to the file; and

(b) entering security indicium, which allows access to the
15 file containing a digital representation of money.

Sub G1 47. The method of claim 46, wherein the security indicia is a verification by the recipient that the electronic message with attached file containing a digital representation of money has been received by the correct party.

48. The method of claim 46, wherein the security indicia is a
password, social security number, employee identification number or personal
identification number.

20 (b) means for transmitting the file containing a digital
representation of money to a recipient.

56. The system of claim 55, further comprising means for allowing the recipient of the file containing a digital representation of money to enter security indicia, which allows access to the file containing a digital representation of money.

5 57. The system of claim 55, wherein the at least one security attribute is the requirement that a recipient of the file containing a digital representation of money enter a password, social security number, employee identification number or personal identification number.

91 10 58. The system of claim 55, wherein the at least one security attribute is the requirement that a recipient of the file containing a digital representation of money prove they are the intended recipient through computer signature identification.

15 59. The system of claim 55, wherein the at least one security attribute is the requirement that a recipient of the file containing a digital representation of money prove they are the intended recipient through entry of a digital certificate or PKI.

20 60. The system of claim 55, wherein the at least one security attribute is the requirement that a recipient of the file containing digital representation of money prove they are the intended recipient through use of a random number generator card or smart card.

5 62. The system of claim 55 wherein the means for transmitting
the electronic mail message with attached containing a digital representation of
money to a recipient is a means for transmission over a distributed computer
network

10 internet. /

64. The system of claim 62, wherein the computer network is nonproprietary.

65. The system of claim 55, wherein application software for securely transferring electronic funds is resident on the transferor's computer.

15 66. The system of claim 55, wherein application software for
securely transferring electronic funds is accessed from a computer or server remote
from the transferor's computer on an as-needed basis.

67. The system of claim 55, further comprising means for receiving a confirmation that funds were successfully transferred.

68. The system of claim 67, wherein the confirmation is an electronic message from a clearing bank acknowledging transfer of title of the funds to the recipient.

69. The system of claim 68, wherein the confirmation further includes a unique number associated with the funds transfer.

70. The system of claim 67, wherein the confirmation is an electronic mail message from the recipient of the electronic funds.

71. The system of claim 67, wherein the confirmation is an electronic message from a network that the electronic message with digital cash file attached was delivered to the recipient.

72. The system of claim 55, wherein the electronic funds transfer is of money from a traditional bank account.

73. A system for receiving a secure file containing electronic funds comprising:

(a) means for receiving a computer file containing a digital representation of money, wherein the file containing a digital representation of money of money has at least one security attribute which precludes unauthorized access to the file; and

(b) means for entering security indicia, which allows access to the file containing a digital representation of money.

75. The system of claim 73, wherein the security indicia is a password, social security number, employee identification number or personal identification number.

77. The system of claim 73, wherein the security indicia is a digital certificate or PKI.

79. The system of claim 73, wherein the security indicium is retinal scan data, a fingerprint or a voiceprint.

80. The system of claim 73, wherein the recipient transfers the digital representation of money to a traditional bank account.

81. The system of claim 73, wherein the recipient maintains the file containing the digital representation of money in a digital form for future digital payments.

82. A system for securely transferring electronic funds

comprising:

(a) means for creating a computer file containing a digital representation of money;

5 (b) means for assigning at least one security attribute to the file containing a digital representation of money, wherein the at least one security attribute precludes unauthorized access to the file containing the digital representation of money;

(c) means for attaching the file containing a digital
10 representation of money to an electronic mail message; and

(d) means for transmitting the electronic mail message with attached file containing a digital representation of money to a recipient.

5w/ 217 83. The system of claim 82, further comprising means for allowing the recipient of the electronic mail message with attached file containing a digital representation of money to enter security indicia that allows access to the file containing a digital representation of money.

84. The system of claim 82, wherein the at least one security attribute is the requirement that a recipient of the file containing a digital representation of money enter a password, social security number, employee identification number or personal identification number.

85. The system of claim 82, wherein the at least one security attribute is the requirement that a recipient of the file containing a digital

representation of money prove they are the intended recipient through computer signature identification.

86. The system of claim 82, wherein the at least one security attribute is the requirement that a recipient of the file containing a digital representation of money prove they are the intended recipient through entry of a digital certificate or PKI.

87. The system of claim 82, wherein the at least one security attribute is the requirement that a recipient of the file containing digital representation of money prove they are the intended recipient through use of a random number generator card or smart card.

88. The system of claim 82, wherein the at least one security attribute is the requirement that a recipient of the file containing a digital representation of money prove they are the intended recipient through a biometric scan comprised of a retina scan, fingerprint or voiceprint.

89. The system of claim 82, wherein the means for transmitting the electronic mail message with attached file containing a digital representation of money to a recipient is a means for transmission over a distributed computer network.

90. The system of claim 89, wherein the computer network is the internet.

92. The system of claim 82, wherein application software for securely transferring electronic funds is resident on the transferor's computer.

5 93. The system of claim 82, wherein application software for securely transferring electronic funds is accessed from a computer or server remote from the transferor's computer on an as-needed basis.

94. The system of claim 82, further comprising means for receiving a confirmation that funds were successfully transferred.

10 95. The system of claim 94, wherein the confirmation is an
electronic message from a clearing bank acknowledging transfer of title of the funds
to the recipient.

96. The system of claim 95, wherein the confirmation further includes a unique number associated with the funds transfer.

15 97. The system of claim 94, wherein the confirmation is an
electronic mail message from the recipient of the electronic funds.

98. The system of claim 94, wherein the confirmation is an electronic message from a network that the electronic message with digital cash file attached was delivered to the recipient.

99. The system of claim 82, wherein the electronic funds transfer is of money from a traditional bank account.

100. A system for receiving a secure file containing electronic funds comprising:

(a) means for receiving an electronic mail message with an attached computer file containing a digital representation of money, wherein the file containing a digital representation of money has at least one security attribute which precludes unauthorized access to the file; and

(b) means for entering security indicia that allows access to the file containing a digital representation of money.

101. The system of claim 100, wherein the security indicia is a verification by the recipient that the electronic message with attached file containing digital representation of money has been received by the correct party.

102. The system of claim 100, wherein the security indicia is a password, social security number, employee identification number or personal identification number.

103. The system of claim 100, wherein the security indicia is computer signature identification of the recipient.

104. The system of claim 100, wherein the security indicia is a digital certificate or PKI.

105. The system of claim 100, wherein the security indicia is a random number generator card or smart card.

106. The system of claim 100, wherein the security indicium is retinal scan data, a fingerprint or a voiceprint.

107. The system of claim 100, wherein the recipient transfers the digital representation of money to a traditional bank account.

108. The system of claim 100, wherein the recipient maintains the file containing the digital representation of money in a digital form for future digital payments.

109. A programmed computer configured for securely transferring electronic funds comprising:

(a) a memory having at least one region for storing computer executable program code; and

(b) a processor for executing the program code stored in memory, wherein the program code includes:

(i) code for assigning at least one security attribute to a file containing a digital representation of money, wherein the at least one security attribute precludes unauthorized access to the file containing the digital representation of money; and

(ii) code for transmitting the file containing a digital representation of money to a recipient.

(a) a memory having at least one region for storing computer executable program code; and

5 (b) a processor for executing the program code stored in memory, wherein the program code includes:

(i) code for receiving a file containing a digital representation of money, wherein the file containing a digital representation of money has at least one security attribute which precludes unauthorized access to the file; and

(ii) code for facilitating the entry of security

indicia that allows access to the file containing a digital representation of money.

111. Computer executable software code configured for securely transferring electronic funds comprising:

(a) code for assigning at least one security attribute to a file containing a digital representation of money, wherein the at least one security attribute precludes unauthorized access to the file containing the digital representation of money; and

(b) code for transmitting the file containing a digital
20 representation of money to a recipient.

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112. The computer executable software code of claim 111,
wherein the code is stored on a computer readable medium.

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113. Computer executable software code configured for receiving a secure file containing electronic funds comprising:

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(a) code for receiving an electronic mail message with an attached file containing a digital representation of money, wherein the file containing a digital representation of money has at least one security attribute which precludes unauthorized access to the file; and

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(b) code for facilitating the entry of security indicia that allows access to the file containing a digital representation of money.

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114. The computer executable software code of claim 113,
wherein the code is stored on a computer readable medium.

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115. A programmed computer configured for securely transferring electronic funds comprising:

(a) a memory having at least one region for storing computer executable program code; and

(b) a processor for executing the program code stored in memory, wherein the program code includes:

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(i) code for creating a file containing a digital representation of money;

(ii) code for assigning at least one security attribute to the file containing a digital representation of money, wherein the at least one security attribute precludes unauthorized access to the file containing the digital representation of money;

5 (iii) code for attaching the file containing a digital representation of money to an electronic mail message; and

(iv) code for transmitting the electronic mail message with attached file containing a digital representation of money to a recipient.

10 116. A programmed computer configured for receiving a secure file containing electronic funds comprising:

(a) a memory having at least one region for storing computer executable program code; and

(b) a processor for executing the program code stored in
15 memory, wherein the program code includes:

(i) code for receiving an electronic mail message with an attached file containing a digital representation of money, wherein the file containing a digital representation of money has at least one security attribute which precludes unauthorized access to the file; and

(ii) code for facilitating the entry of security indicia that allows access to the file containing a digital representation of money.

117. Computer executable software code configured for securely transferring electronic funds comprising:

- 5 (a) code for creating a file containing a digital representation of money;
- (b) code for assigning at least one security attribute to the file containing a digital representation of money, wherein the at least one security attribute precludes unauthorized access to the file containing the digital
- 10 representation of money;
- (c) code for attaching the file containing a digital representation of money to an electronic mail message; and
- (d) code for transmitting the electronic mail message with attached file containing a digital representation of money to a recipient.

15 *sub a* 118. The computer executable software code of claim 117, wherein the code is stored on a computer readable medium.

119. Computer executable software code configured for receiving a secure file containing electronic funds comprising:

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- 20 (a) code for receiving an electronic mail message with an attached file containing a digital representation of money, wherein the file

containing a digital representation of money has at least one security attribute which precludes unauthorized access to the file; and

(b) code for facilitating the entry of security indicia that allows access to the file containing a digital representation of money.

5 *sub c1* 120. The computer executable software code of claim 119,
wherein the code is stored on a computer readable medium.

121. The method of claim 18, wherein the recipient of the money from a traditional bank account initiates the transfer.

122. The method of claim 19, wherein a recipient initiates the
10 transfer and receives the money from a traditional bank account.

123. The method of claim 45, wherein a recipient of the money from a traditional bank account initiates the transfer.

124. The method of claim 46, wherein a recipient initiates the transfer and receives the money from a traditional bank account.

15 125. The system of claim 72, wherein the recipient of the money
from a traditional bank account initiates the transfer.

126. The system of claim 73, wherein a recipient initiates the transfer and receives the money from a traditional bank account.

127. The system of claim 99, wherein the recipient of the money
20 from a traditional bank account initiates the transfer.

128. The system of claim 100, wherein a recipient initiates the transfer and receives the money from a traditional bank account.

129. The method of claim 2, wherein the security indicia must be entered prior to a time limit for access upon receipt by the recipient, wherein the
5 time limit is established by a sender who transmits the file.

130. The method of claim 19, wherein the security indicia must be entered prior to a time limit for access upon receipt by the recipient, wherein the time limit is established by a sender who transmits the file.

CU 10 131. The method of claim 28, wherein one of the security attributes of the file containing a digital representation of money is a time limit for certain actions by the recipient.

132. The method of claim 29, wherein the security indicia must be entered prior to a time limit for access upon receipt by the recipient, wherein the time limit is established by a sender who transmits the file.

15 133. The method of claim 132, wherein the recipient must acknowledge receipt of the file containing a digital representation of money within the time limit established by the sender.

20 134. The method of claim 132, wherein the recipient must register receipt of the file containing a digital representation of money with a third-party within the time limit established by the sender.

136. The method of claim 46, wherein the security indicia must be
5 entered prior to a time limit for access upon receipt by the recipient, wherein the
time limit is established by a sender who transmits the file.

10 138. The method of claim 136, wherein the recipient must register
11 receipt of the file containing a digital representation of money with a third-party
12 within the time limit established by the sender.

139. The method of claim 136, wherein the recipient must activate
or access the file containing a digital representation of money within the time limit
15 established by the sender.

140. The system of claim 55, wherein one of the security attributes of the file containing a digital representation of money is a time limit for certain actions by the recipient.

141. The system of claim 56, wherein the security indicia must be
20 entered prior to a time limit for access upon receipt by the recipient, wherein the
time limit is established by a sender who transmits the file.

143. The system of claim 141, wherein the recipient must register
5 receipt of the file containing a digital representation of money with a third-party
within the time limit established by the sender.

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145. The system of claim 73, wherein one of the security attributes of the file containing a digital representation of money is a time limit for certain actions by the recipient.

146. The system of claim 73, wherein the security indicia must be entered prior to a time limit for access upon receipt by the recipient, wherein the time limit is established by a sender who transmits the file.

147. The system of claim 146, wherein the recipient must acknowledge receipt of the file containing a digital representation of money within the time limit established by the sender.

148. The system of claim 146, wherein the recipient must register
20 receipt of the file containing a digital representation of money with a third-party
within the time limit established by the sender.

149. The system of claim 146, wherein the recipient must activate or access the file containing a digital representation of money within the time limit established by the sender.

150. The system of claim 82, wherein one of the security attributes
5 of the file containing a digital representation of money is a time limit for certain
actions by the recipient.

151. The system of claim 83, wherein the security indicia must be entered prior to a time limit for access upon receipt by the recipient, wherein the time limit is established by a sender who transmits the file.

152. The system of claim 151, wherein the recipient must acknowledge receipt of the file containing a digital representation of money within the time limit established by the sender.

153. The system of claim 151, wherein the recipient must register
receipt of the file containing a digital representation of money with a third-party
15 within the time limit established by the sender.

154. The system of claim 151, wherein the recipient must activate or access the file containing a digital representation of money within the time limit established by the sender.

155. The system of claim 100, wherein one of the security
20 attributes of the file containing a digital representation of money is a time limit for
certain actions by the recipient.

156. The system of claim 100, wherein the security indicia must be entered prior to a time limit for access upon receipt by the recipient, wherein the time limit is established by a sender who transmits the file.

157. The system of claim 156, wherein the recipient must
5 acknowledge receipt of the file containing a digital representation of money within
the time limit established by the sender.

158. The system of claim 156, wherein the recipient must register receipt of the file containing a digital representation of money with a third-party within the time limit established by the sender.

10 159. The system of claim 156, wherein the recipient must activate
or access the file containing a digital representation of money within the time limit
established by the sender.

160. The method of claim 18, wherein the electronic funds transfer of money is in one or more currencies or representations of money.

15 161. The method of claim 160, wherein the user can request from a clearing bank the conversion of one or more currencies or representations of money contained in a file containing a digital representation of money into different currencies or representations of money.

162. The method of claim 26, wherein the electronic funds transfer
20 of money is in one or more currencies or representations of money.

168. The method of claim 167, wherein the user can request from a clearing bank the conversion of one or more currencies or representations of money contained in a file containing a digital representation of money into different currencies or representations of money.

169. The method of claim 54, wherein the recipient maintains more than one currency or representation of money in a digital form for future digital payments.

170. The system of claim 72, wherein the electronic funds transfer
5 of money is in one or more currencies or representations of money.

171. The system of claim 170, wherein the user can request from a clearing bank the conversion of one or more currencies or representations of money contained in a file containing a digital representation of money into different currencies or representations of money.

172. The system of claim 80, wherein the electronic funds transfer of money is in one or more currencies or representations of money.

173. The system of claim 172, wherein the user can request from a clearing bank the conversion of one or more currencies or representations of money contained in a file containing a digital representation of money into different currencies or representations of money.

174. The system of claim 81, wherein the recipient maintains more than one currency or representation of money in a digital form for future digital payments.

175. The system of claim 99, wherein the electronic funds transfer
20 of money is in one or more currencies or representations of money.

5 177. The system of claim 107, wherein the electronic funds
transfer of money is in one or more currencies or representations of money.

178. The system of claim 177, wherein the user can request from a clearing bank the conversion of one or more currencies or representations of money contained in a file containing a digital representation of money into different currencies or representations of money.

179. The system of claim 108, wherein the recipient maintains more than one currency or representation of money in a digital form for future digital payments.

180. The programmed computer of claim 109, wherein the
15 electronic funds transfer of money is in one or more currencies or representations of
money.

181. The programmed computer of claim 110, wherein the electronic funds transfer of money is in one or more currencies or representations of money.

183. The computer executable software code of claim 113,
5 wherein the electronic funds transfer of money is in one or more currencies or
representations of money.

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185. The programmed computer of claim 116, wherein the electronic funds transfer of money is in one or more currencies or representations of money.

186. The computer executable software code of claim 117,
wherein the electronic funds transfer of money is in one or more currencies or
15 representations of money.

187. The computer executable software code of claim 119,
wherein the electronic funds transfer of money is in one or more currencies or
representations of money.

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